



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,264	01/02/2004	Louise E. Moser	ETE5342.11A2	7448
8156	7590	09/24/2007	EXAMINER	
JOHN P. O'BANION			BAROT, BHARAT	
O'BANION & RITCHEY LLP				
400 CAPITOL MALL SUITE 1550			ART UNIT	PAPER NUMBER
SACRAMENTO, CA 95814			2155	
			MAIL DATE	DELIVERY MODE
			09/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/751,264		MOSER ET AL.	
	Examiner		Art Unit	
	Bharat N. Barot		2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-43 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-43 presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Glendening et al (U.S. Patent No. 7,243,132). Glendening's patent meets all the limitations for claims 1-4 recited in the claimed invention.

4. As to claim 1, Glendening et al teach a method of maintaining clock consistency in a fault-tolerant distributed system for a group of replicas having physical hardware clocks (see abstract; and figures 1-4), comprising: executing a time service handler for accessing a physical hardware clock; establishing a single consistent group clock value within the time service handler for a group of replicas to be used in place of the physical hardware clock value; and returning from the time service handler with the group clock value (figures 7-13; and columns 11-12).

5. As to claim 2, Glendening et al teach that the replicas in the group receive a single consistent group clock value while at least one of the replicas continues to operate (figures 11-13; and column 12 lines 40-65).
6. As to claims 3-4, Glendening et al teach that in response to successive executions of the time service handler by the replicas in the group for accessing the physical hardware clocks, the consistent group clock values returned to the replicas in the group are monotonically increasing; and the increment, skew, and drift of the consistent group clock value from one reading to the next is bounded (figures 14-23; and column 12 line 66 to column 13 line 34).

Allowable Subject Matter

7. Claims 12-43 are allowed over the prior art of record and claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The examiner has found that the prior art of record does not teach or suggest or render obvious the limitations that the time service handler computes and stores a clock offset value as the difference between the physical hardware clock value and the most recent determination of the consistent group clock value, the clock offset value is updated in response to establishing a consistent group clock value; and sending a clock synchronization message to replicas in the group of replicas, which proposes the local logical clock value as a consistent group clock value, when no other clock synchronization messages for the calling thread have been received, extracting

Art Unit: 2155

the local clock value from a received clock synchronization message as a consistent group clock value; and updating the clock offset value for the given replica to the value of the consistent group clock value less the physical clock value.

Additional References

8. The examiner as of general interest cites the following references.

- a. Newcombe et al, U.S. Patent No. 6,349,325.
- b. Bedard et al, U.S. Patent No. 4,683,570.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bharat Barot** whose Telephone Number is **(571) 272-3979**. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM. Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number **(571) 273-8300**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Saleh Najjar**, can be reached at **(571) 272-4006**.

Patent Examiner Bharat Barot

Art Unit 2155

September 07, 2007

Bharat Barot.
**BHARAT BAROT
PRIMARY EXAMINER**

Application/Control Number: 10/751,264

Page 5

Art Unit: 2155